



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

644.4120

Job Sheet 175554



April 16 (ships May 9th)

Part No: 644.4120

Job Qty: 10 ea

Part Name: Spacer, Crosstube



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/6/18

Job Tracking No:

Due Date: 4/16/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG 649.4100 Rev F2 IPP REV:A NEW ISSUE 16.12.06 JLM VERIFIED BVY:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Start up Operation	10 Ea		4/13/18	0.00	0.00	Start Up Machining-4		JB 18-05-02
110	Lathe Conv	10 pcs		4/14/18	0.00	10.00	Lathe Conv-1		JB 18-05-02
120	QC	10 pcs		4/14/18	0.00	0.00	QC2 Machining-1		JB 18-05-02
130	QC	10 pcs		4/14/18	0.00	0.00	QC8 Machining-2		JB 18-05-02
140	Outsource	10 pcs		4/14/18	0.00	0.00	Outsource4		CT 18-5-2
150	Packaging	10 pcs		4/14/18	0.00	0.00	Packaging2		AT 19/05/18
160	QC	10 pcs		4/14/18	0.00	0.00	QC6		38
170	SprayPaint	10 pcs		4/16/18	0.00	1.00	Spray Paint		ind 18/06/2018
180	QC	10 pcs		4/16/18	0.00	0.00	QC14		38
190	Packaging	10 pcs		4/16/18	0.00	0.00	Packaging3-1		9-88
200	QC21-SA	10 Ea		4/16/18	0.00	0.00	QC21		JUN 13 2018

Part Op 110 - 1-TURN AS PER DWG DWG REV: 2- deburr and break all sharp edges

Descriptions: 140 - 1-ISSUE P/O TO ATG: 00039781 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625

Type 3 Class 2 3-Certification of Conformity is required

170 - PRIME AS PER DWG AND NOTE 4 BATCH: 138747 PAINT AS PER DWG AND NOTE 4

BATCH: 138873

190 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6R0.625	6061-T6 Round Bar .625"	2.9500 ft (.295 ea)	100-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Start up Operation	M6061T6R0.625	3	44	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

DQA: _____ Date: _____

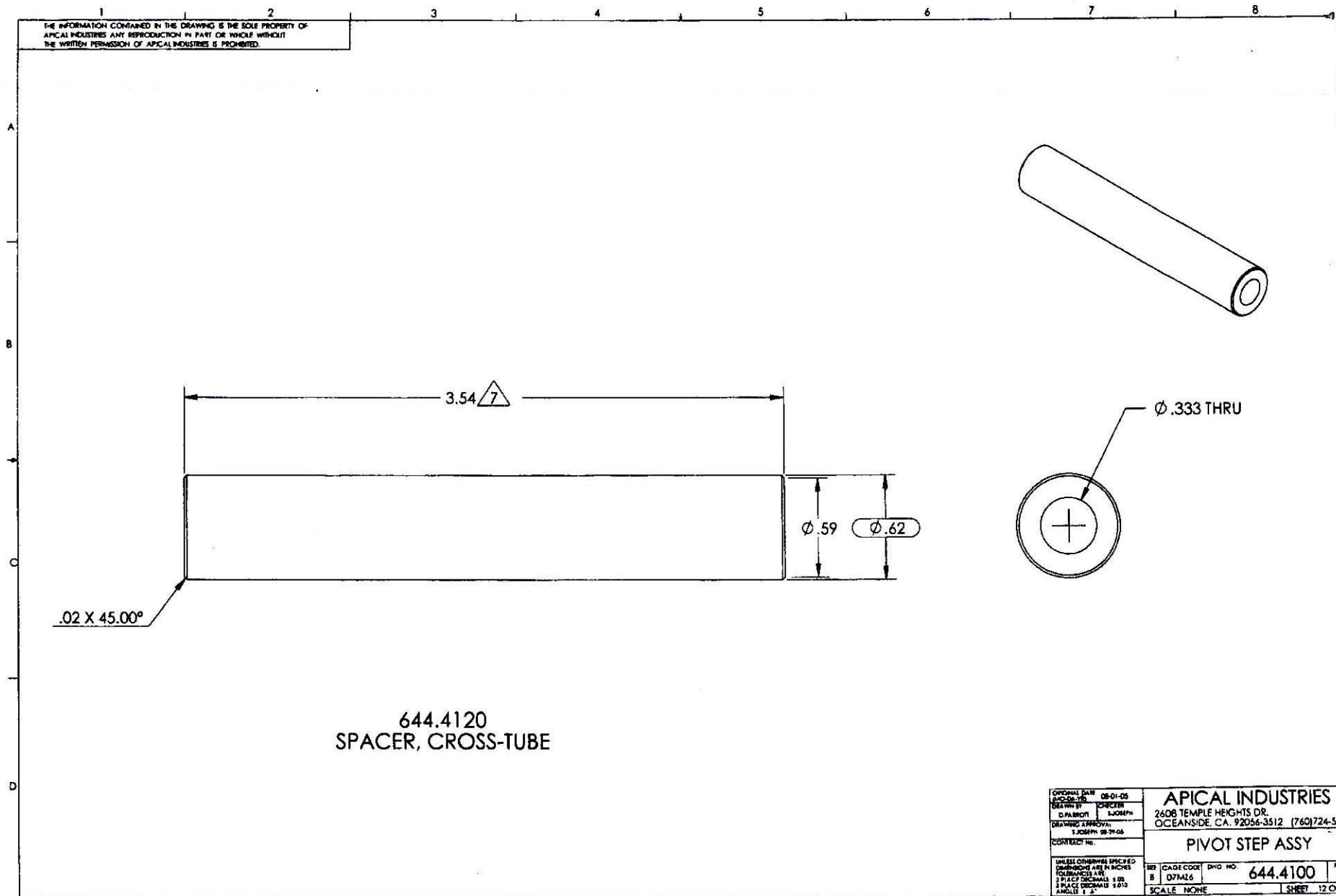
**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



644.4120
SPACER, CROSS-TUBE

ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY D. PALMISTO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL J. JOSEPH		PIVOT STEP ASSY	
CONTRACT NO.		REV. F	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 1 PLACE DECIMALS ±.010 ANGLES ±.5°		REV. B	QAGE CODE D7M2.6
SCALE NONE		PART NO. 644.4100	
SHEET 12 OF 16			

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																				
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																					
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																					
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																					
Large Fab ☐	Composite ☐	Supplier ☐																																																						
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval _____																																																				
Description Work Order Deviation 				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____																																																				
Dart Aerospace Ltd. 1270 Aberdeen Street Hawkebury, ON T6A 1K7 CANADA TEL.: 1 813 632-5200 Email: sales@dartaero.com www.dartaerospace.com Data: 05/02/18 Container No: S067668 Part: 644.4120 Job No: 175554 Serial No/Batch: S067668 Revision: F2 Inspector:																																																								
<table style="width:100%; border: none;"> <tr> <td colspan="2" style="text-align: center;">Root Cause</td> <td></td> <td></td> </tr> <tr> <td style="width: 15%;">Environment ☐</td> <td style="width: 15%;">No Re-verify ☐</td> <td style="width: 35%;"></td> <td style="width: 35%;">Large ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td></td> <td>Positioned Wrong ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td></td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td></td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td></td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td></td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td></td> <td>Part Moved ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td></td> <td>Drawing ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td></td> <td>Finish ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td></td> <td>Misread ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td></td> <td>Turning Sequence ☐</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> <td colspan="2" style="text-align: center;">OTHER : _____</td> </tr> </table>					Root Cause				Environment ☐	No Re-verify ☐		Large ☐	Design ☐	Operator ☐		Positioned Wrong ☐	Doc/Data ☐	Offset/Setup ☐		Outside Dimensions ☐	Equip/Tooling ☐	Supplier ☐		Over/Under tolerance ☐	Handling/Pre ☐	Training ☐		Part Incorrect ☐	Material ☐	Use for Testing ☐		Part Lost/Missing ☐	Internal Transport ☐	Poor Information ☐		Part Moved ☐	Tribal Knowledge ☐	Rushing ☐		Drawing ☐	LOA ☐	Product Improvement ☐		Finish ☐	Substation ☐	Process Improvement ☐		Misread ☐	Past Expiry Date ☐	Manufacturing Process ☐		Turning Sequence ☐	Misidentified ☐	Past Due ☐	OTHER : _____	
Root Cause																																																								
Environment ☐	No Re-verify ☐		Large ☐																																																					
Design ☐	Operator ☐		Positioned Wrong ☐																																																					
Doc/Data ☐	Offset/Setup ☐		Outside Dimensions ☐																																																					
Equip/Tooling ☐	Supplier ☐		Over/Under tolerance ☐																																																					
Handling/Pre ☐	Training ☐		Part Incorrect ☐																																																					
Material ☐	Use for Testing ☐		Part Lost/Missing ☐																																																					
Internal Transport ☐	Poor Information ☐		Part Moved ☐																																																					
Tribal Knowledge ☐	Rushing ☐		Drawing ☐																																																					
LOA ☐	Product Improvement ☐		Finish ☐																																																					
Substation ☐	Process Improvement ☐		Misread ☐																																																					
Past Expiry Date ☐	Manufacturing Process ☐		Turning Sequence ☐																																																					
Misidentified ☐	Past Due ☐	OTHER : _____																																																						



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039781**

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO039781

PO Date: 5/2/18

Due Date: 5/4/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	175554	644.4120	Spacer, Crosstube 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	5/4/18	10 pcs	0 pcs	10 pcs	\$8.38/pcs	\$83.80
2	175560	644.4122	EC145 Fwd Crosstube Bushings 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	5/4/18	10 pcs	0 pcs	10 pcs	\$8.38/pcs	\$83.80
3	175561	644.4123	EC145 Fwd Crosstube Bushing 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A-8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	5/4/18	10 pcs	0 pcs	10 pcs	\$8.38/pcs	\$83.80

DAS
38
9-89



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 915097

Date: 07-May-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chrisoula Tsimiklis
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		OUR TRUCK	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
10 ea	Part: 644.4120 Spacer, Crosstube Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Job: 22983 PO: PO039781 Line: 1	Rev: F	
10 ea	Part: 644.4122 EC145 Fwd Crosstube Bushings Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Job: 22984 PO: PO039781 Line: 2	Rev: F	
10 ea	Part: 644.4123 Bushings Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 5mils). Job: 22985 PO: PO039781 Line: 3	Rev: F	
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>07/05/2018</u> Certified Signature: <u>[Signature]</u> Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. Made in Canada.			